

Abstract

Said invention relates to a heat-insulation material for a heat-insulation layer (3) for a carrier body (2) for preventing heat transfer between said carrier body and a surrounding area (7) therearound comprising at least one luminous substance which is excitable for emitting luminescent light having a defined emission wavelength and comprises at least one type of metal oxide containing at least one trivalent metal (A). Said invention also relates to an arrangement of at least one heat-insulation layer which contains said heat-insulation material and is applied to the carrier body. The inventive heat-insulation material is characterised in that the metal oxide is embodied in the form of a mixed oxide selected in a perovskite group of total formula $AA'O_3$, and/or of pyrochlore of total formula $A_2B_2O_7$, wherein A' is the trivalent metal and B is a tetravalent metal. Said heat-insulation layer containing said heat-insulation material is preferably used for a gas turbine.